writing data to a first user-accessible storage location of the plurality of user-accessible storage locations on the at least one storage device in response to a communication from the host computer that does not include the data to be written to the first user-accessible storage location, the controller including means, responsive to the communication, for generating the data independently of any data passed from the host computer to the storage system.

REMARKS

In response to the Office Action mailed July 18, 2001, Applicants respectfully request reconsideration. To further the prosecution of this application, amendments have been made to the claims, and the claims as presented are believed to be in allowable condition.

Claims 1-22 are pending in this application. Claims 1-6, 8, 11-17, 19, 21, and 22 have been amended herein. Attached hereto are marked-up versions of the changes made to the claims by the current amendment. The attached pages are captioned **"MARKED-UP CLAIMS."**

Preliminarily, Applicants' attorneys thank Examiner Encarnacion for the courtesies extended to them during the telephone interviews of October 19th and 22nd, 2001. The substance of the interview is discussed below.

The "Substitute Specification"

In paragraph 1, the Office Action indicated that the substitute specification previously filed was not entered because it did not comply with the requirements set forth in 37 C.F.R. § 1.125. As discussed with Examiner Encarnacion during the interview of October 19th, no substitute specification has been filed in this application. The submission referred to is believed to be a copy of one of four co-pending applications that were submitted in an Information Disclosure Statement (IDS) mailed on February 6, 2001. Applicants respectfully request that the Examiner consider the document as a submission under 37 C.F.R. §§ 1.56, 1.97, and 1.98, as identified in the IDS submitted on February 6, 2001.

Allowable Subject Matter

In paragraph 4 of the Office Action, claims 11 and 21 were objected to as being dependent upon a rejected base claim, but were considered to be allowable if rewritten in independent form including all of the limitations of their respective base claims and any intervening claims. Claims 11 and 21 have been so rewritten. Accordingly, claims 11 and 21 are believed to be in condition for allowance.

Claim Rejections Under 35 U.S.C. § 103

In paragraphs 2 and 3 of the Office Action, claims 1-10, 12-20, and 22 were rejected under 35 U.S.C. § 103(a) as being obvious over Ali (U.S. Patent No. 4,970,692) in view of Krueger (U.S. Patent No. 6,256,642 B1), Fujita (U.S. Patent No. 5,359,569), and Sakui (U.S. Patent No. 6,240,022 B1). While not acceding to the propriety of this rejection, each of independent claims 1, 12, and 22 has been amended to patentably distinguish over the combination of Ali, Krueger, Fujita, and Sakui. Specifically, each of claims 1, 12, and 22 has been amended to recite that the at least one storage device includes "at least one disk drive."

Each of claims 1, 12, and 22 has also been amended to address a concern expressed during the October 22nd interview by clarifying that the storage locations to which generated data is to be written are "user-accessible." Specifically, during the October 22nd interview, Examiner Encarnacion expressed a concern as to whether the claims distinguished over a conventional disk formatting command. To allay this concern, Applicants' attorneys agreed to amend the claims to recite that the storage locations to which generated data is to be written are "user-accessible". In a conventional disk formatting command, the locations to which formatting "data" (such as the number of tracks per sector, the location of bad sectors, etc.) is written are not accessible to a user.

In light of the amendments to claims 1, 12, and 22 described herein, each of claims 1, 12, and 22 is now believed to be in condition for allowance.

Claims 2-6, 8, 13-17, and 19 have been amended to agree with the changes made to each of claims 1 and 12.
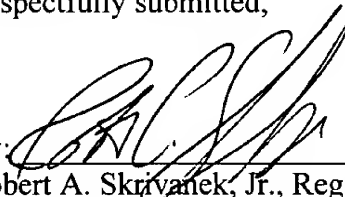
Stated Reasons For Allowability

In paragraph 5 of the Office Action, the Examiner identified his reasons for the indication of allowable subject matter of claims 11 and 21. Applicants agree with the Examiner that claims 11 and 21 "cover" the secure delete operation disclosed on pages 24 and 25 of the specification. However, Applicants respectfully point out that claims 11 and 21 (as well as claims 1, 12, and 22) are not limited to only this secure delete operation, as they may be read on other operations, for example, the initialization operation disclosed at page 26, lines 15-24 of Applicants' specification, and the transformation operation described at page 26 lines 25-30 of Applicants' specification, or other types of operations as described at page 24, lines 20-25 of Applicants' specification.

CONCLUSION

In view of the foregoing amendments and remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicants' attorney at the number listed below.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicants hereby request any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by an enclosed check, please charge the deficiency to Deposit Account No. 23/2825.

Respectfully submitted,

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Attorney's Docket No. E0295/7040 RFG
Date: October 31, 2001
x11/18/01x

Claims 1-6, 8, 11-17, 19, 21, and 22 have been amended as follows:

1. (Thrice Amended) A storage system for use in a computer system including a host computer, the storage system comprising:

at least one storage device having a plurality of user-accessible storage locations, the at least one storage device including at least one disk drive;

a cache memory; and

a controller, coupled to the cache memory and the at least one storage device, that controls access to the at least one storage device from the host computer, the controller being capable of generating data that is independent of any data passed from the host computer to the storage system and writing the generated data to a first user-accessible storage location of the plurality of user-accessible storage locations on the at least one storage device in response to a communication from the host computer that does not include the generated data to be written to the first user-accessible storage location.

2. (Thrice Amended) The storage system of claim 1, wherein the first user-accessible storage location includes a plurality of first user-accessible storage locations on the at least one storage device, and wherein the controller is capable of generating the data that is independent of any data passed from the host computer to the storage system and writing the generated data to the plurality of first user-accessible storage locations in response to a single command.

3. (Thrice Amended) The storage system of claim 2, wherein the controller is capable of generating the data that is independent of any data passed from the host computer to the storage system having a predetermined state and writing the generated data having the predetermined state to each of the plurality of first user-accessible storage locations in response to the single command.

4. (Twice Amended) The storage system of claim 2, wherein at least two storage locations of the plurality of first user-accessible storage locations are perceived by the host computer to be non-contiguous storage locations on the at least one storage device, and wherein

the controller is capable of writing the generated data to any of the at least two storage locations in response to a single command.

5. (Twice Amended) The storage system of claim 2, wherein at least two storage locations of the plurality of first <u>user-accessible</u> storage locations are perceived by the host computer to be storage locations on different storage devices of the at least one storage device, and wherein the controller is capable of writing the generated data to each of the at least two storage locations in response to a single command.

6. (Thrice Amended) The storage system of claim 2, wherein the at least one storage device includes a plurality of storage devices, wherein at least two storage locations of the plurality of first <u>user-accessible</u> storage locations are on different storage devices, and wherein the controller is capable of writing the generated data to each of the at least two storage locations in response to a single command.

8. (Twice Amended) The storage system of claim 1, wherein the first <u>user-accessible</u> storage location corresponds to a logical object defined by the computer system, the logical object being formed by a first group of the plurality of <u>user-accessible</u> storage locations on the at least one storage device that includes the first <u>user-accessible</u> storage location, and wherein the controller is capable of writing the generated data to only the first group in response to the single command.

11. (Amended) <u>A</u> [The] storage system [of claim 1,] <u>for use in a computer system</u> <u>including a host computer, the storage system comprising</u>:
    <u>at least one storage device having a plurality of user-accessible storage locations;</u>
    <u>a cache memory; and</u>
    <u>a controller, coupled to the cache memory and the at least one storage device, that</u>
<u>controls access to the at least one storage device from the host computer, the controller being</u>
<u>capable of generating data that is independent of any data passed from the host computer to the</u>
<u>storage system and writing the generated data to a first storage location of the plurality of storage</u>

locations on the at least one storage device in response to a communication from the host computer that does not include the generated data to be written to the first storage location; wherein the at least one storage device includes a plurality of disk drives.

12. (Twice Amended) A method of operating a storage system in a computer system including the storage system and a host computer coupled thereto, wherein the storage system is a disk drive storage system that includes a cache memory and at least one storage device having a plurality of user-accessible storage locations, the at least one storage device including at least one disk drive, the method comprising, in response to a communication received from the host computer, acts of:

(A)   generating, within the storage system, data that is independent of any data passed from the host computer to the storage system to be written to a first user-accessible storage location of the plurality of user-accessible storage locations on the at least one storage device; and

(B)   writing the generated data to the first user-accessible storage location.

13. (Twice Amended) The method of claim 12, wherein the first user-accessible storage location includes a plurality of first user-accessible storage locations on the at least one storage device, and wherein the act (B) includes an act of writing the generated data to the plurality of first user-accessible storage locations in response to a single command received from the host computer.

14. (Twice Amended) The method of claim 13, wherein the act (A) includes an act of generating the data that is independent of any data passed from the host computer to the storage system having a predetermined state to be written to each of the plurality of first user-accessible storage locations in response to the single command received from the host computer.

15. (Twice Amended) The method of claim 13, wherein at least two storage locations of the plurality of first user-accessible storage locations are perceived by the host computer to be non-contiguous storage locations on the at least one storage device, and wherein the act (B)

includes an act of writing the generated data to any of the at least two storage locations in response to the single command received from the host computer.

16. (Twice Amended) The method of claim 13, wherein at least two storage locations of the plurality of first <u>user-accessible</u> storage locations are perceived by the host computer to be storage locations on different storage devices of the at least one storage device, and wherein the act (B) includes an act of writing the generated data to each of the at least two storage locations in response to the single command received from the host computer.

17. (Twice Amended) The method of claim 13, wherein the at least one storage device includes a plurality of storage devices, wherein at least two storage locations of the plurality of first <u>user-accessible</u> storage locations are on different storage devices, and wherein the act (B) includes an act of writing the generated data to each of the at least two storage locations in response to the single command received from the host computer.

19. (Twice Amended) The method of claim 12, wherein the first <u>user-accessible</u> storage location corresponds to a logical object defined by the computer system, the logical object being formed by a first group of the plurality of <u>user-accessible</u> storage locations on the at least one storage device that includes the first <u>user-accessible</u> storage location, and wherein the act (B) includes an act of writing the generated data to only the first group in response to a single command received from the host computer.

21. (Amended) <u>A</u> [The] method of [claim 12,] <u>operating a storage system in a computer system including the storage system and a host computer coupled thereto, wherein the storage system includes a cache memory and at least one storage device having a plurality of user-accessible storage locations, the method comprising, in response to a communication received from the host computer, acts of:</u>
    <u>(A)   generating, within the storage system, data that is independent of any data passed from the host computer to the storage system to be written to a first storage location of the plurality of storage locations on the at least one storage device; and</u>

(B)　　writing the generated data to the <u>first storage location;</u>

wherein the storage system is a disc drive storage system, and the at least one storage device includes a plurality of disc drives.

22.　(Twice Amended)　A storage system for use in a computer system including a host computer, the storage system comprising:

at least one storage device <u>including at least one disk drive</u> having a plurality of user-accessible storage locations;

a cache memory; and

a controller, coupled to the cache memory and the at least one storage device that controls access to the at least one storage device from the host computer, the controller being capable of writing data to a first <u>user-accessible</u> storage location of the plurality of <u>user-accessible</u> storage locations on the at least one storage device in response to a communication from the host computer that does not include the data to be written to the first <u>user-accessible</u> storage location, the controller including means; responsive to the communication, for generating the data independently of any data passed from the host computer to the storage system.